EXAMINATION NO.:_____

THE MALAWI NATIONAL EXAMINATIONS BOARD

2015 MALAWI SCHOOL CERTIFICATE OF EDUCATION EXAMINATION

AGRICULTURE

(100 marks)

Subject Number: M012/I

Monday, 22 June

Time Allowed: 2 hours
8:00 – 10:00 am

PAPER I

Instructions

1. **This paper contains 11 printed pages. Please check.**
2. This paper has **two** sections, **A** and **B**. Section **A** has **ten** questions and Section **B**, **four** questions.
3. Answer **all** questions in the spaces provided.
4. Write your **Examination Number** on **all** pages.
5. In the table provided on this page, **tick** against the question number you have answered.
6. At the end of the examination, hand in your paper to the invigilator.

Question Number	Tick if answered	Do not write in these columns	
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			
13			
14			

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Section A (60 marks)

Answer **all** the **ten** questions in this section.

1. a. List any **two** chemical properties of soil.

_____

_____

(2 marks)

b. Give any **two** ways of modifying soil pH.

_____

_____

_____

(2 marks)

2. a. State any **two** points to consider when setting up a flood irrigation system.

_____

_____

(2 marks)

b. (i) Describe "surface land drainage".

_____

_____

_____

_____

(2 marks)

(ii) State **four** disadvantages of "surface land drainage".

_____

_____

_____

_____

_____

_____

_____

(4 marks)

Continued/…

3. a. (i) Name **one** bloodless method of castrating bull calves.

_____

(1 mark)

(ii) Give any **two** advantages of castrating bull calves.

_____

_____

_____

(2 marks)

b. A form 3 class carried out an experiment on manure to find out the appropriate rate of manure on maize yield. Use this information to answer questions that follow.

Treatment	**Rate of manure** (kg/ha)	**Maize yield** (50 kg bag/ha)
1	0	10
2	10	25
3	15	45
4	20	50
5	25	53

(i) Give any **three** factors that should be held constant in the experiment.

_____

_____

_____

(3 marks)

(ii) Name the control treatment.

_____

(1 mark)

(iii) How many kilogrammes of maize were harvested from treatment 4?

_____

(1 mark)

Continued/…

4. Describe the **three** steps that are involved in hay making.

_____

_____

_____

_____

_____

_____

_____

_____

_____

(6 marks)

5. At a certain market, the price of chambo rose from K2 000.00 to K2 500.00 per unit. This resulted in change of supply from 27 units to 30 units of Chambo. Calculate price elasticity of supply at this market.

(6 marks)

Continued/…

6. a. State any **two** signs that could show that a cow is about to give birth.

_____

_____

(2 marks)

b. Describe **two** management activities that are recommended to a newly born calf.

_____

_____

_____

_____

_____

(4 marks)

7. a. State any **four** situations in which a partial budget could be useful to a farmer.

_____

_____

_____

_____

_____

_____

_____

(4 marks)

b. Write down any **three** examples of production records for a dairy farmer.

_____

_____

_____

_____

(3 marks)

Continued/…

8. State any **four** factors that should be considered when selecting a site for mango production.

_____

_____

_____

_____

_____

_____

(4 marks)

9. a. Define the term "cropping systems".

_____

_____

_____

_____

(1 mark)

b. List any **three** activities involved in "bush fallowing".

_____

_____

_____

_____

_____

_____

(3 marks)

c. State **three** disadvantages of "bush fallowing".

_____

_____

_____

_____

_____

(3 marks)

Continued/…

10. Describe each of the following steps in a report of an agricultural experiment:

a. design of an experiment

_____
_____
_____

(2 marks)

b. data analysis

_____
_____
_____

(2 marks)

Continued/…

Section B (40 marks)

Answer **all** the **four** questions in this section. Your answers should be in an essay form **except** for **Question 12.**

11. Explain any **five** effects of soil degradation on agricultural production.

(10 marks)

Continued/…

12. Draw a well labelled diagram to describe the life cycle of a **one** host tick.

(10 marks)

Continued/…

13. Explain any **five** ways in which high population growth may contribute to the occurrence of droughts.

(10 marks)

Continued/…

14. The following agricultural development services exist in a certain farming community:

- money lending institution
- farm settlement
- land husbandry
- soil testing

Explain any **five** ways in which the community would utilize these services to improve agricultural production.

(10 marks)

END OF QUESTION PAPER

This paper contains 11 printed pages.